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PSYCHIATRY AND THE CRIMINAL LAW

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JUSTICE OF THE SUPERIOR COURT

PROVIDENCE, RHODE ISLAND

I approach this subject with distrust of my own power to deal with it satisfactorily as it cannot be treated without a degree of medical knowledge to which I make no pretension. The subject has excited a controversy between the medical and legal professions and many cruel things have been said on both sides. The heat and vehemence of these controversies make discussion difficult. The lawyer's definition of a psychiatrist reads: "A psychiatrist is a gentleman and a man of science who, under circumstances often found trying to the coolest mind, is attempting to state unfamiliar and in many cases unwelcome doctrines to which he attaches the utmost importance." The psychiatrist's definition of the lawyer: "*****."

So, in our talk this afternoon, we shall try to discuss calmly and dispassionately, we hope, the relation of psychiatry to the criminal law and of psychiatrists to its administration.

Both civil law and criminal law have many points of contact with medicine which give rise to medico-legal problems. In solving these problems it is obvious that the most complete co-operation of these professions is urgently required in the public interest. Mutual confidence and understanding are essential conditions of such co-operation. I regret to say that up to quite recently suspicion and misunderstanding have existed between the American lawyer and the psychiatrist. The lawyer is sceptical of the psychiatrist's knowledge and the psychiatrist, distrustful of the lawyer's purposes, believes that the lawyer has no genuine desire to utilize him and his knowledge in dealing with problems of crime. The psychiatrist contends that the law and legal procedure are based upon an antiquated and out-moded conception of the etiology of human behavior and of the nature of the human mind and personality. He deals harshly with the concept and

criteria of criminal responsibility and the way in which criminals are dealt with by legal processes.

The treatment of offenders is the chief point of contact between criminal law and medicine and criminal responsibility must be discussed not so much for its own sake as for its bearing upon the relations between medical men and lawyers. A discussion of the nature of criminal law is pertinent. Criminal law describes many and diverse kinds of behavior to which it gives such names as murder, rape, arson, larceny, etc., and prohibits them. It provides who shall be responsible for such prohibited behavior and how they shall be treated if guilty thereof. If legally responsible for such prohibited behavior, the culprit shall be dealt with in diverse ways. If legally irresponsible by reason of mental defect or disease, the culprit shall be released or confined in institutions for the mentally deficient or mentally ill. It is obvious that the chief problem here is:

- (1) What behavior *ought* to be made criminal, and
- (2) What *ought* to be done with the criminal and these, in turn, depend upon a more fundamental question,

What end criminal law should serve.

What end criminal law should serve has been answered in two ways:

- (1) It *ought* to mete out punishment, as retribution for crime, and
- (2) It ought to serve the welfare of the state, the common or political good.

Psychiatrists display a remarkable unanimity of opinion about legal problems. I dare to suspect that such unanimity is due to their desire, wholly unconscious of course, to find something upon which they can agree. The criminal law operates for them as a sort of escape mechanism. At any rate, the unanimous opinion of psychiatrists is that the end of criminal law ought to be what Dr. Glueck has called

Read before the Rhode Island Medico-Legal Society, January 27, 1938.

the social security rather than punitive retribution. Now, do I dare to say in this company that in my humble opinion the psychiatrists have stated the end of the criminal law much too narrowly, that the problem is in no sense a medical problem and that medical men have no special competence to discuss it?

The retributive and non-retributive theories of criminal justice *are not* based on different conceptions of human behavior or of human personality but upon different conceptions of *justice*. This problem cannot be resolved in terms of any knowledge or ideas to be found in psychiatry. Justice must be defined in ethical terms. It is concerned only with the rightness of the individual utterly apart from his goodness as a citizen and the welfare of the state. Punishment is justified to correct the erring human will. We can all agree that criminal law should serve the common good and not the end of punitive retribution. It should also be a means to public welfare and should aim to prevent crime. Criminal law has not the singleness of purpose that characterizes medicine's attitude towards disease. The lawyer is constantly confronted with problems of social values with which medical men do not have to contend. As Dr. Glueck points out in his essay on "Analytic Psychology and Criminology," the problems of the medical men are problems of method only.

Criminal responsibility is a question of whom it is just to punish. Behavior that is immoral should be made criminal, we all agree, but crime is not immoral unless the culprit was a free moral agent at the time of its commission, that is, that having the capacity to choose between right and wrong, he freely chooses the wrong. Some psychiatrists contend that this theory assumes a freedom of will which human beings do not possess. They believe in what they call, "Psychological Determinism." Determinism, as the lawyer understands it, means the absolute rule of cause and effect, that nothing happens which is not caused. Freedom of will means the rule of deliberation. To act voluntarily, or with a free will, is thus only to act after deliberation. The law assumes that only normal men, being normally rational, have freedom of will in the sense of capacity to act deliberately. It does not assume that their behavior is without cause or antecedent conditions. The criminal law holds a person incapable of guilt if

- (1) He had no capacity to deliberate, he was bereft of reason.

- (2) Having capacity to deliberate, he lacked knowledge relevant to deliberation, that is, he did not know his act was wrong.

- (3) Having capacity and knowledge essential to deliberation, he lacked ability to choose between doing and not doing the act.

In these cases he cannot be said either to be a free moral agent or to have exhibited a vicious will. This statement includes the legal right and wrong test and the so-called irresistible impulse test. Psychiatrists condemn the right and wrong test and criticize the law's failure to recognize partial responsibility, the variations in the capacity for deliberation and self-control and there may be some merit in these criticisms. Criminal law does not define "insanity." It defines responsibility and prescribes those irresponsible by reason of mental defect or disease. Law does not distinguish between kinds or degrees of mental disease nor does it place any limit whatsoever upon the knowledge or experience which psychiatrists may employ in forming opinions as to the effect of any type of mental disorder upon the capacity of persons accused for lack of deliberation or self-control. Doctors do not have to consider popular notions as to how the sick should be treated but the law does have to consider them as to how criminals should be treated. Thus, it can be readily seen, the problem of criminal responsibility is one of the chief irritants in the relations between the lawyer and the psychiatrist. The lawyer believes, rightly or wrongly, that the psychiatrist does not understand and does not wish to understand this problem, that he is determined to impose on the law his own notions of responsibility and does not assist in the determination of such responsibility according to legal standards; that he confounds what is and what in his opinion ought to be.

What is the field of the psychiatrist then in the treatment of offenders and the prevention of crime? The chief purpose of the criminal law at the present time is not to reform or rehabilitate criminals. Crime may be prevented by (1) incapacitation; (2) reformation; (3) deterrence. Potential offenders can be deterred by (1) instilling abhorrence for crime; (2) through fear of being treated like criminals, and (3) satisfying desire for revenge on particular criminals. The chief reliance of the criminal law at present is on incapacitation and deterrence, rather than reformation. The doctors, on the other hand, recommend greater emphasis on reformation. Reformation depends upon whether the one to be reformed is corrigible or incorrigible,

and (2) what means can bring such reformation about. Legislators, lawyers and judges are ignorant as to the satisfactory answers to the above problems. Can the doctors answer them? I do not believe such knowledge exists. But assuredly criminal courts are not social clinics for the rehabilitation of the criminal. In the absence of knowledge, we should regard what we may do in the nature of an experiment to gain knowledge. Here psychiatrists can be of inestimable value in contributing their wisdom, insight, experience and informed judgment to the creation of a public opinion sympathetic to the high purposes of psychiatry in this particular field. An interesting step in this direction came to my attention on Sunday last. In the Federal Reformatory at Chillicothe, Ohio, a special laboratory presided over by a specialist in mental diseases is about to open. The study is the inmate who finds himself driven to crime when he "knows better." Dr. Justin Fuller, prison bureau psychiatrist, says, "These men are marked by an inability to profit by experience. Usually they have a fine brain but it runs like an engine without a governor, by fits and starts, erratic and unpredictable. When men like that go wrong, they are the most dangerous criminals in the world, because they are smart. They are hard to catch and hard to "pin anything on." A great majority of "repeaters" fall into this class of "constitutional psychopaths," sex criminals, hoboos, wanderers unable to hold a job or remain in one place, petty offenders who transgress without any apparent reason. It is hoped that such defects in personality and the inability of adjustment can be attacked with profit. It is a worth while experiment.

My opinion humbly offered for what it is worth is that the solution of the whole problem of psychiatrist vs. the criminal is to turn the erring child into useful paths before he gets set in criminal ways—"to substitute something else for maliciousness and idleness" and I most respectfully propose for psychiatry a concentrated and energetic attack upon "Juvenile Delinquency."

DISCUSSION

DR. HUGH E. KIENE:

Judge Walsh, in his talk this evening, has covered a subject which has caused considerable controversy in the past. It seems that lawyers and physicians have some difficulty in meeting on a common ground. But there must be a place for

medical advice in legal matters, for the physician continues to be called upon to express his views.

In criminal cases, the attorney, either representing the client or prosecuting him, often requests a physician to examine and determine the mental status of the individual accused. Part of the difficulty, as expressed in Judge Walsh's talk, is due to the physician's going beyond the field of medicine. If the physician understands the part he should play, the conflict should be easily dissolved. It is the physician's duty, when called upon, to make as thorough an examination as indicated, in order that he may learn the mental status of the client in relation to the criminal act. After he has determined this, it is his responsibility to give his findings to the court to use as the court sees fit. He should give the results of his findings without prejudice. Whether or not his evidence is accepted by the court should have no bearing so long as he has done his job thoroughly. The physician in medical practice is called upon in a different way as he must learn the nature of the patient's illness and then prescribe treatment. In legal matters he seeks the nature of the client's illness, but the treatment is prescribed by the court.

The physician, through his experience, is in a position to elicit symptoms indicating varying mental diseases. If these symptoms are present, he is justified in saying that the individual is mentally ill. It is always difficult to compare Insanity with Mental Illness as Insanity is not used in medicine, whereas Mental Illness has a more definite meaning to the physician, there being many types of mental disease. I am inclined to agree with Judge Walsh in his statement that, since the physician is unable to outline a more constructive program based on experimental evidence in the treatment of criminals, the present methods should not be too severely criticized. So much for criminal matters.

The great need for further medical studies of conduct exists in the juvenile field where the physician may be of more assistance in the treatment of the delinquent. A great deal of research and hard work are necessary. This work, according to our present knowledge, requires much time and because of this factor may be considered rather impractical. If results can be obtained, the expense, no matter how great, should be worthwhile as, in our present civilization, we believe in assisting those who are ill, and the conduct disorders of childhood should be considered in a similar way to physical sickness.

DEVELOPMENT OF THE HUMAN HEART

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There is relatively little direct information on the ontogeny of the human heart even from a purely morphological point of view, and due to obvious technical and social difficulties there is none on the functional side. Nevertheless, the simple morphological picture, seen in relation to the ontogeny and phylogeny of whole embryos, enables us to deduce additional data as to the early functioning of the heart. These data are not incontrovertible yet they are so plausible that they give us confidence in the validity of a general hypothetical picture of the functional as well as the morphological cardiac development. Such a picture is valuable not only for its own sake but also because it can be proven or disproven more easily than can a more amorphous mass of theory.

Direct observations on preserved fetuses show that the heart of the human embryo forms very much as does that of other mammals; in fact, the general lines followed are essentially those common to all vertebrates. In brief, according to the accounts of Davis, Mall, Corning, and Fischel, the heart passes through the following stages.

At a very early stage, when the first body segment is being formed, the cardiac area consists of a crescent shaped mass of tissue lying around the head fold. This mass lies between the endoderm and ectoderm and contains many small vesicles which are in the process of fusion. This fusion takes place first in the middle portion of each arm. The rough cavity thus formed is the fore-runner of the pericardial cavity. The upper layer of cells goes to form the pericardial wall, and the lower slightly thicker layer of rapidly proliferating cells forms the cardiogenic plate. This latter is separated from the endoderm and the rest of the mesoderm by a space which is filled with sparsely scattered angioblast cells. These cells seem to be split off from the splanchnic mesoderm, a part of the crescentic cardiac tissue, and will go to form the endocardium or lining of the heart lumen.

By the stage of the fourth pair of body somites, the two arms of the crescent have fused medially, and the pericardial cavity has become continuous and spacious laterally and ventrally. The main feature of this stage is that the heart has apparently

become reversed in its antero-posterior orientation. This has come about by the growth of the head fold which has extended upward and forward. Since the pericardium lay in front of this head fold, it is now pulled anteriorly and is turned over so that the cardiogenic plate now lies dorsal to the pericardial wall.

Longitudinal folds arise along the length of this plate, and extend dorsally towards the pharynx, eventually fusing in the mid line. The tube thus formed is the heart and is complete in the region of the ventricle by the stage of seven body somites. This fusion and attendant elongation of the heart proceeds posteriorly towards the atrium as development progresses. The endocardium forms a plexiform mass of cells, which is for the most part solid in the early stages. Since the endocardium arose from the two lateral horns of the horseshoe of primitive heart tissue, and since the heart was formed by the median fusion of these two horns, the endocardium is in the form of a pair of cords of tissue within the primordium of the early heart tube. These cords fuse together by an indefinite number of bridges. By the stage of six somites these cords have formed two tubes and lie inside the myocardial sheath. Soon these tubes fuse to form one in the region of the ventricle, and the fusion progresses posteriorly as does that of the myocardium. In these stages, of six to seven somites, and of a body length of about 1.8 to 2.0 mm., the endocardium seems to extend out farther than the surrounding myocardium and to lie directly on the endoderm.

The entire cardiac tube starts its asymmetrical bending at about the stage of two somites. C. L. Davis reports that he can distinguish the sulci dividing the heart into its various chambers at as early a stage as that of three somites. Thus, at an extremely early stage, the heart may be divided in its gross anatomy into bulbus ventricle, and atrium. At a stage of two millimeters the human heart is roughly comparable to that of a thirty-two hour chick; at a stage of 3.5 mm. it compares with a heart of a forty-four hour chick.

According to Woolard, Sanabria, and Mall, the special conducting system of the mammalian heart arises first in the region of the posterior wall of the atrial canal—the opening between the ventricle and the atrium. It seems probable that the musculature in this region becomes differentiated to form the atrio-ventricular bundle and the atrio-ventricular node. This change takes place in the sheep at a

From the Biological Laboratories of Harvard University.

stage of from 5 to 7 mm. The Node of Tawara, the atrio-ventricular node, is formed at the 20 mm. stage, at the anterior end of the A-V bundle of His. The branches of the bundle of His and the Purkinje network differentiate at about this time. The conducting system of the embryonic heart has been studied by several workers:—in the rabbit by Girgis and Sanabria; in the calf by Wahlin and Delorenzi; in the sheep by Sanabria; and in the human by Sanabria, Tudor Jones, and Mall. Eyler and Meek gave a good review of some of this material in 1921.

There are no indications of nerves in the heart of the chick until the fifth day of incubation, after all the regions of the heart have been distinct morphologically and functionally for three days. There is little information of a similar nature on the human heart, but we have no reason to doubt that it follows the same general sequence since none of the observations contradict this view.

It is noticeable that in the preserved human embryo there is not a strict correlation between the length of the embryo, the number of somites or pairs of body segments, and the stage of cardiac development. While this is not at all surprising, it does make it impossible to set very precise limits to the development of the whole embryo. It is, therefore, fruitless to attempt to make more than a general correlation at the present time between the development of the heart and the embryo as a whole. The table below gives a few figures taken from Fischel that may help to correlate the age, length, and somite number of the human embryo. These data are of necessity variable since each of these properties varies in development, and since it is impossible to give the age of these embryos precisely, due to the fact that the time of fertilization is unknown in the available cases.

Somite Number	Length	Age
0	1.17 mm.	20 days
2	1.54 mm.	21 days
6	1.80 mm.
8	2.11 mm.
8	2.30 mm.
15	2.4 mm.
32	4.02 mm.°
.....	8.00 mm.°	1 month
.....	20.0 mm.°	2 months
.....	70.0 mm.°	3 months
.....	130.0 mm.°	4 months
.....	160.0 mm.°	5 months

°Crown-rump measurements

Fischel reports that the heart sounds can be heard at the end of the fifth month, and that the pulse of the heart of an embryo of 1.5 cm. is about 60 to 70 beats per minute. However, as has already been noted, there is literally nothing known of the functioning of the early human embryonic heart, and there seems to be no chance that its functional development will ever be watched directly. But there are two ways in which some information can be obtained. One may either apply a certain degree of deductive reasoning to determine the probable functional consequences of the given morphological structure, or one may rely upon the close morphological parallelism between the human heart's development and that of other vertebrates, and assume that the functional parallelism is as close. Let us treat these two in order, very broadly.

Since the embryo is a living organism, it needs an adequate supply of oxygen, and a means of removal of wastes such as carbon dioxide. The mechanism of this gaseous exchange is diffusion in the very early stages, but as the tissues become thicker, the relatively slow process of diffusion becomes inadequate to supply the needs of the rapidly growing cells. We know that this function of transport is carried on by the circulatory system in the adult. Therefore we would expect the circulatory system to be functional at about the time when the heart is a simple tube, without valves, and slightly bent to the right, since at this time the embryo is about 2.5 to 3.0 mm. in length, and is many cell layers thick. If the heart is to beat at this time, and is to act as a pump for circulation of the blood, the beat would probably be of a peristaltic character, since this is the obvious method of making an effective pump of a simple tube. The wave of contraction must start at the posterior end, since this is the direction in which the blood moves in the adult, and it is extremely unlikely that the circulation would reverse its direction during the course of development.

Examination of other vertebrate hearts corroborates this picture, and gives somewhat more information of the earliest contractions. In the case of the heart of the chick embryo the first contractions consist of slight, uncoordinated twitches or fibrillations in the posterior part of the cardiac tube at a stage when it is slightly bent to the right. Within two hours this twitching has changed to a coordinated beat whose peristaltoid character becomes more and more pronounced as the heart tube increases in length. This takes place some eight to ten hours before the circulation is a completely closed

system. If this is true of the human foetus, the heart begins to beat at a stage of about 2 mm. and has a peristaltoid beat, with the wave of contraction starting at the posterior end. A similar opinion has been expressed by Corning as to the time of the first beating of the heart.

Since there are no nerves in the heart at this time, the beat must be entirely myogenic. This is to be expected, since even in the adult human heart the nerves are purely regulative. It is clear that this type of beat must be changed in some way, since in a large organism the volume of blood to be pumped must of necessity be so large that a tubular heart of relatively huge diameter would be required to pump it. There would also have to be a high blood pressure to enable the blood to be forced through the capillaries efficiently. If the adult were to keep the tubular heart, with its peristaltoid beat, the cardiac muscles would have to contract with force enough to close the lumen of the tube completely against the arterial pressure. This is obviously an inefficient type of construction for a large heart. The change which one would expect from these general considerations actually takes place.

In general outline the beat of the adult human heart is much like that of all adult vertebrates. It is so well known that it requires little or no explanation. The peristaltoid beat has been altered by three morphological developments. The chambers have become enlarged and have become functionally isolated from one another; valves have developed between them; and certain pathways have been differentiated for the conduction of excitatory impulses: the Keith-Flack node, the node of Tawara, the bundle of His, and the Purkinje fibres. Due to these changes the contraction originating in the posterior part of the heart, or sinus, can no longer pass along the entire length of the heart, pushing blood ahead of it. Instead, the sinus, and later its remnant, the Keith-Flack node, contracts, and the impulse passes along specialized fibres to reach all parts of the auricles nearly simultaneously. The auricles contract, the ventricles which are functionally insulated, do not. The impulse passes to the node of Tawara, and after a short pause passes down the bundle of His, and from its branches to the Purkinje fibres and thence to the muscle fibres of the ventricle. Thus the chambers of the heart contract in sequence as units. The pause in the passage of the impulse from the auricles to the ventricles due to the A-V node is important, in that it gives an instant during which the valves can close

and prevent the back flow of the blood. It is interesting to note that in the chick this type of beat has been acquired before the conducting fibres have been differentiated histologically. It is probable that the human embryonic heart behaves similarly. In other words, the human heart probably has attained a chambered type of contraction by the stage of a 3.5 mm. embryo. Therefore it is possible that, from this time on, such functional abnormalities as partial or complete heart block may take place. Such drugs as may be in the mother's blood stream and will pass the placenta may well have an effect upon the foetal heart and consequent effects upon the developing embryo, at a very early stage of embryonic growth. It is very likely that the partial or temporary failure of the circulation to any part of the developing embryo or foetus will produce incomplete growth or differentiation. Such faults may result in abnormalities of the child ranging from minor defects to lethal defects in parts that are not apparently closely connected with the heart.

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Old News

Primitive races will often hold a photograph the wrong way up. The natives do not hold a photograph upside-down because they cannot understand it, but because they can see it equally well from any angle. In this, logic is on their side, for when you look down on a photograph it is, of course, actually horizontal.

THE GENTLE SAVAGE. Richard Wyndham, William Morrow & Company, New York, 1936.



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STATE MEDICAL EXAMINING BOARD

The unselfish services of the recent Board of Medical Examiners merit recognition by the citizens of Rhode Island. Some three years ago Dr. Edward A. McLaughlin, Director of the State Department of Public Health, asked Doctors Charles F. Gormly, Alex. M. Burgess, and Charles L. Farrell to conduct the examinations for candidates for a license to practice medicine in the State. Not satisfied with the system they found in use, these men, under the leadership of Dr. Gormly, made extensive studies of the methods used elsewhere. Combining their findings with their own good sense, they organized not only a system of practical examinations, both oral and written, but also drew up a list of requirements for admission to the examinations.

Throughout their term of service it has been their aim not to choose men who merely wrote good examination papers, but rather those who by their previous records and by practical demonstrations showed promise of becoming desirable practitioners. The site of examinations was removed from the writing room to the bedside. Here, in addition to the work of making out and correcting examina-

tions, the examiners gave a good deal of their energy every three months in order that the State might be served by the best physicians available.

From the start, these men found that the pressure of work made these duties more than they could carry on in justice to themselves. Dr. Burgess resigned about two years ago and Drs. Gormly and Farrell have long wanted to be relieved of their tasks but have until recently remained on under pressure and at considerable sacrifice of time and energy. May their successors carry on as wisely and conscientiously and with the same determination to act according to the dictates of their own better judgment regardless of any outside influence that may be brought to bear. Theirs is in large part the responsibility of determining whether good men or poor will be admitted to the practice of medicine in Rhode Island.

CHIROPRACTIC

From the dawn of history humanity has been impressed by the phenomenon of laying on of hands. In the past few years a cult has arisen which embodies this act along with the high pressure salesmanship of chiropractic. In a previous editorial in the RHODE ISLAND MEDICAL JOURNAL it was pointed out that this pseudo-science was declared to be not a healing art in two of our more prominent states. Recently the Supreme Court of another state—Iowa—has handed down a decision which should be of interest to us in Rhode Island. A test case was brought by the state against a man by the name of Boston, and carried up to the Supreme Court. Its decision clarifying the law is of great interest for it declared that a chiropractor is not authorized to practice operative surgery or osteopathy, nor can he administer or prescribe any drug or medicine included in the materia medica. Nor is he authorized to practice physiotherapy, electrotherapy, colonic irrigation, or prescribe diets for his patients.

To put it in another form, in Iowa the chiropractor is only permitted to practice "chiropractic." The physician knows only too well that, to practice the healing art to its fullest extent, he must employ every possible aid in diagnosis, and that treatment to be effective must utilize more than his naked hands placed in the region of the spinal column. With that knowledge, it might not be out of place to examine the Rhode Island law regarding chiro-

practic. A cursory glance makes us realize that a powerful lobby is at work, for the statute has been amended no less than four times in the past ten years, and each time it has been to liberalize the restrictions placed on these individuals. Ch. 1067 of the Public Laws of 1927 in part says "Chiropractic is defined to be the science of palpating and adjusting the articulations of the human spinal column by hand, for the elimination of the cause of disease, corrective and orthopedic gymnastics, and dietetics." In 1928, Ch. 1186, Sec. 20, is found: "Such chiropractic physicians shall be entitled to the same services of the pathological and chemical laboratories of the State Board of Health as are available to physicians . . . and they shall be subject to the same duties and liabilities and entitled to the same rights in the practice of their profession as may be imposed or given by law or regulation upon or to physicians of other schools, except that they shall not write prescriptions for internal medication nor practice major surgery."

In 1931 the law is again amended by two important additions. The first defines the art as a manipulation not only by hand but also by "electromechanical appliances." Does this mean that the chiropractor may use physiotherapy? It is not clear, for in a later section of the act it states that "every person desiring to practice physiotherapy in addition to chiropractic must" take a special examination. The editor asks this question:—When is the use of electro-mechanical appliances physiotherapy and when is it not?

Here is an opportunity for our Society. The law is vague. It should be clarified, as in Iowa. The Attorney General should be stimulated (it will take more than a suggestion) to bring a test case. The result will be in all probability as it was in Iowa. And once that is done, the cult will die; for a plant which is choked cannot flourish.

THE PROBLEM OF PNEUMONIA SERUM

The season in which pneumonia is most prevalent has just passed. After the smoke of battle has cleared away it is natural to sit back and take account of stock. It is only through honest self-criticism that we grow in wisdom and understanding. Pneumonia cases, above all others, leave one with a feeling that perhaps there was something which could have been done but was not; some

possibility overlooked that perhaps might have saved a life, a life which slipped through our fingers almost before we were aware of the seriousness of the infection.

Great strides have been made in the treatment of pneumonia through the use of serum. We have facilities available which enable us to type the organism within twenty-four hours following the onset of the disease. Now comes the saddest part of the story. It costs between sixty and one hundred dollars to treat a single patient with serum. It is absolutely impossible for the majority of patients to buy this serum. Skilled nursing care is very essential, long and expensive convalescence is practically inevitable. The doctor is in a position where he has to choose between indispensable necessities and a treatment which is financially prohibitive. No wonder the physician spends days of worry thinking that perhaps he has been forced to deny a patient the means of getting well, has perhaps been the helpless instrument of death.

We in Rhode Island are surrounded by states which supply pneumonia serum free of charge. Massachusetts, Connecticut, and New York have a free supply for patients who cannot afford to pay for it. Maine and New Hampshire are about to institute this service; several of the mid-western states are seriously contemplating the institution of free pneumonia serum.

The Department of Public Health of Rhode Island has funds which can be diverted to this channel. Pressure should be brought to bear, every local medical society should make its voice heard. It is only through concerted effort from every member of the Rhode Island Medical Society that this can be brought about. Let's all get behind this vital movement!

TUBERCULOSIS—THE EARLY DIAGNOSIS CAMPAIGN

The attention of the profession of Providence has already been called to the relation of the private practitioner to the campaign against tuberculosis by the letter sent out by the Standing Committee of the Providence Medical Society with the notice of the April meeting. This letter appears elsewhere in this issue. One of the agencies mentioned in this letter as cooperating with the physician, the Rhode Island Tuberculosis Association, is carrying on an "Early

Diagnosis Campaign." To this campaign the profession of the state gives its heartiest approval and cooperation. The eventual success of this great effort on the part of the public spirited citizens who constitute this Association will depend in great part on how the practitioners of the state do their duty. Their twofold responsibility, to the public and to private individuals, is nowhere better exemplified than in this work against tuberculosis.

Among the points worth emphasizing in connection with this work are the following:

(1) The concerted efforts of all agencies have reduced the death rate from tuberculosis to one-third what it was thirty years ago but the annual reduction has become less and less each year and now is scarcely significant at all.

(2) The death rate in Rhode Island is higher than in any other New England state.

(3) This campaign against the disease has been carried out annually every year for ten years but this year it is to be especially vigorously prosecuted in the hope that a real advance can be made.

(4) In all its work the Rhode Island Association, like the other agencies engaged in the struggle against tuberculosis, plans complete cooperation with the private physician, not competition with him.

From the point of view of the practitioner, among the many facts which stand out in his mind as important, the following considerations are of particular value:

(1) Advanced tuberculosis of the lungs must be looked for at all ages.

(2) Early lesions are usually found between the time of adolescence and the age of thirty years.

(3) No physical examination on a young adult or adolescent child is adequate without an X-ray examination of the lungs.

(4) Early diagnosis, usually possible by X-ray only, means checking the disease in the individual and preventing its spread in the community.

(5) The discovery of an active case means an examination of contacts—an investigation to determine to whom and from whom the disease has been transmitted.

(6) Public and private agencies, as noted in the letter already referred to, are at all times available to aid the doctor in the care of the individual and the investigation of contacts.

DOCTOR WILLIAM GROSVENOR

The memory of Doctor William Grosvenor is perpetuated by the Grosvenor Building of the Rhode Island Hospital. In a corridor of the building a bronze tablet states: "This building is given in memory of Doctor William Grosvenor and Rosa Anne Mason Grosvenor by their daughter, Rosa Anne Grosvenor, November 12, 1924." Probably comparatively few realize the wide scope and value of the work carried on day by day in this building: during the past year, 21,404 treatments were given in the physical therapy department; 20,344 patients were treated or examined in the X-ray department. There is also the Doctor William Grosvenor Fund, "established in memory of her father by Rosa Anne Grosvenor, the income to be applied to acquiring appliances and apparatus to assist in laboratory and research work, to aid the development of the X-ray department, to assist in purchasing radium or any special agent, so that patients may receive the benefits of the latest and most approved scientific methods of medicine and surgery. Anno Domini, MCMXXII."

William Grosvenor was born on April 30, 1810, the youngest child of Doctor Robert Grosvenor of Killingly Hills, Connecticut. Doctor Robert Grosvenor was a very well known and successful physician who practiced through Wyndham County for fifty years. The son, Doctor William Grosvenor, after graduation from the Medical Department of the University of Pennsylvania, returned to Killingly and took up the practice of medicine with his father. Upon his marriage to Miss Rosa Anne Mason, he moved to Providence where he continued his practice. On June 26, 1836, Doctor Grosvenor was elected to fellowship in the Rhode Island Medical Society and continued in active membership for the next fifteen years. Then, upon the death of his father-in-law, it became a necessity for Doctor Grosvenor to take charge of the Masonville Cotton Mills, now known as the Grosvenor-Dale Company, and so, very reluctantly, he gave up his practice.

Doctor William Grosvenor died in Providence on August 10, 1888, at the age of seventy-eight years. His great interest in medicine continued until the time of his death. The busy building which bears his name is a fitting memorial to his active and useful life.

PROVIDENCE MEDICAL ASSOCIATION

Minutes of the March Meeting

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. Alex. M. Burgess, on Monday, March 7, 1938, at 8:40 P. M.

The minutes of the last meeting were read and approved. The Secretary read a letter from the Director of the Providence Child Guidance Clinic regarding the joint annual meeting of the Providence Child Guidance Clinic and the Rhode Island Society for Mental Hygiene to which all interested physicians are invited. The Secretary read a communication from Dr. Henry E. Utter regarding conferences on pediatrics to be conducted by the State Board of Health during the spring. It was voted that the Providence Medical Association give its approval to these conferences to be held in towns which desire them.

The first paper of the evening was given by Dr. Howard R. Ives and was entitled "The Bacteriology of Clean Abdominal Wounds."

The second paper of the evening, "The Significance of Double Zone Beta Hemolytic Streptococci for the Cow and for Man," was presented by Dr. J. Howard Brown, Associate Professor of Bacteriology at Johns Hopkins University. This paper was discussed by Dr. Charles W. Stewart, Dr. Harold G. Calder, Dr. Alfred L. Potter, and Dr. Thomas W. Grzebien.

Their applications having been approved by the Standing Committee, the following were elected to membership:

John S. Dziob
John Fracasse
Perry Sperber

The Secretary read an obituary of the late Dr. George E. Reynolds. It was voted to spread this on the records and to send a copy to the family and to the RHODE ISLAND MEDICAL JOURNAL.

Dr. Frank B. Cutts made a special report for the Standing Committee and introduced the following resolution:

RESOLUTION OF THE PROVIDENCE MEDICAL ASSOCIATION IN CONCLAVE ASSEMBLED,
....., CONCERNING FEDERAL LEGISLATION
ON FOOD, DRUG, DIAGNOSTIC AND THERAPEUTIC DEVICE AND COSMETIC CONTROL.

Whereas, Recent tragic deaths caused by "Elixir Sulfanilamide," and previous serious illnesses and

deaths attributable to dinitrophenol, cinchophen and other toxic drugs have clearly demonstrated the inadequacy of the regulation over these substances afforded by the Food and Drug Act of 1906, as amended; and

Whereas, No provision is provided in this Act for regulation of the labelling, advertising or sale of diagnostic or therapeutic devices and cosmetics, these being articles which are frequently closely connected with the health of the public; and

Whereas, Even casual perusal of the daily press in most localities, and infrequent attention to radio programs afford numerous instances of advertising in which grossly exaggerated, if not highly fraudulent, claims are made for concoctions of doubtful or at best limited value; and

Whereas, We, as physicians, are concerned primarily with the prevention and cure of disease, and are deeply interested in any legislation that will enable us better to achieve this end; now therefore be it

Resolved by the Providence Medical Association in regular session assembled, That this Association strongly supports the recommendations for legislation included in the Report of the Secretary of Agriculture submitted in response to House Resolution 352 of Nov. 18, 1937 and Senate Resolution 194 of Nov. 16, 1937, these recommendations being, in brief: (1) licensed control of new drugs to insure that they will not be generally distributed until adequate tests have shown them to be safe for use; (2) prohibition of drugs which are dangerous to health when administered in accordance with the manufacturer's directions for use; (3) prohibition of secret remedies by requiring that labels disclose fully the composition of drugs and include warnings as to dangers in their use, and be it further

Resolved, That legislation is much needed for the control of diagnostic and therapeutic devices and cosmetics, as well as for the control of food and drugs; and that any legislation designed to exert control over food, drugs, diagnostic and therapeutic devices and cosmetics should include rigid restriction on all false and misleading advertising of these products or substances; and be it further

Resolved, That in formulating such legislation it is highly desirable that adequate provision be made for the establishment of obligatory legal standards for the strength, quality, purity, etc., of drugs and diagnostic and therapeutic devices, and that in formulating such standards small committees of

pharmacologists, physicians, surgeons or other qualified experts from the best medical schools or research laboratories be consulted for advice; and be it further

Resolved, That this Association is strongly opposed to any division of authority and responsibility for the enforcement of any food, drug, diagnostic and therapeutic device and cosmetic law enacted, and recommends that authority and responsibility under any such law be vested in the Food and Drug Administration of the United States Department of Agriculture; and be it finally

Resolved, That copies of this resolution be forwarded to each Senator and Representative in Congress from Rhode Island, to Senator Royal S. Copeland and Representative Clarence F. Lea, to the director of the Rhode Island Department of Public Health, to the Secretary of the Rhode Island Medical Society, to the Secretary of the American Medical Association, and to a local newspaper published in the city of Providence.

The resolutions were discussed by Dr. Jacobs S. Kelley and Dr. Frank B. Cutts. It was moved, seconded, and voted that the Providence Medical Association adopt these resolutions.

The President announced that a meeting be held in the Peters House of the Rhode Island Hospital on March 9, 1938, at 8 P. M., at which a moving picture taken at the front in Spain demonstrating methods of first aid and medical treatment in the front lines would be shown and to which all doctors and nurses are invited.

The meeting adjourned at 10:40 P. M. Attendance, 95. Collation was served.

Respectfully submitted,

HERMAN A. LAWSON, M.D., *Secretary*

PAWTUCKET MEDICAL ASSOCIATION

Minutes of the Annual Meeting

The Annual Meeting of the Pawtucket Medical Association was held at the Pawtucket Golf Club on Thursday, March 24, 1938. Dr. Evariste A. Cormier, retiring President, presided. Dr. James L. Wheaton was toast master. Dr. Wheaton presented a scroll to Dr. Byron U. Richards as a token of appreciation as Treasurer for sixteen years. Dr. Walter C. Rocheleau, President of the Rhode Island Medical Society, brought the felicitations of the state society and read a paper on "Health In-

surance." Reverend Robert Seilhamer was the speaker of the evening and gave a very interesting talk on "Sampans and Shadows." At the banquet which preceded the business meeting a good time was enjoyed by all.

The nominating committee, Dr. Charles H. Holt, Chairman, Dr. Earl F. Kelly and Dr. Henry J. Hanley, presented the slate of nominations and same were elected:

President, Dr. Charles F. Farrell

Vice President, Dr. Thad. A. Krolicki

Secretary, Dr. John H. Gordon

Treasurer, Dr. Earl J. Mara

Standing Committee, Dr. Evariste A. Cormier

Delegate, Dr. Henry J. Hanley

Dues were voted to be three dollars until January, 1939, and in December another assessment to be made to correspond with the by-laws in changing the fiscal year.

It was voted that the Secretary write to Dr. George J. Howe and Dr. Charles F. Sweet and express regret for their inability to attend on account of illness. It was voted that the Spatula Club be thanked for their donation of cigars for the banquet. Reports of the Secretary, Treasurer and Standing Committee were read and accepted. The meeting adjourned at 12:30 A. M.

Respectfully submitted,

THAD. A. KROLICKI, M.D.,
Secretary

LOCAL EVENTS

March 22

Dr. Laurence Ellis addressed the monthly meeting of the Staff of the Homeopathic Hospital of Rhode Island. His subject was "Intravenous Medication."

March 27

At the Medical Library, Dr. Edward S. Brackett spoke on "Facts for Future Mothers." Dr. George W. Waterman gave a talk on "Cancer Problems."

March 28

At the meeting of the Malpighi Medical Club Dr. Wilfred Pickles read a paper on "Regional Enteritis," illustrated with lantern slides. Professor Pietro Campellue of the University of Padua gave a short talk on "Present Social Medicine in Italy."

April 8

Dr. F. Ronchese entertained the William W. Keen Medical Club. He read a paper on the subject "Differential Diagnosis in Dermatology," illustrated with lantern slides.

April 6-7

More than 2000 guests attended the Open House held by the Rhode Island College of Pharmacy at the building on Benefit Street, Providence. There were lectures and demonstrations on the varied topics taught at the school, an exhibition of many pharmaceutical agents, some of them in process of manufacture, an elementary demonstration with the microscope of bacteriology, histology and pathology, a motion picture film showing "The Discovery of Etherization."

April 12

Dr. Albert H. Miller entertained the Amos Throop Medical Club with a paper on "Introduction of Anesthesia in 1846." The paper was illustrated with lantern slides and was discussed by Dr. Edward S. Cameron, Dr. Elihu S. Wing, and by the members of the Club.

April 15

The Friday Night Medical Club was entertained by Dr. Herman C. Pitts. Dr. Merrill Moore of the Boston City Hospital and Harvard Medical School addressed the club on "The Psychiatrist and the Patient." Tracing the history of the treatment of mental disease in the past century, he stated that, twenty years ago, 85% of the patients suffering from paranoia died during the first year, and indicated the successful results of modern treatment. The subject was discussed by Dr. James A. McCann and by the members of the club.

April 18

Dr. Frank B. Cutts entertained the Thirty-four Medical Club. Professor Charles A. Stewart of Brown University presented a paper on "Recent Trends in Bacteriology."

April 21

The regular monthly meeting of the Staff Association of St. Joseph's Hospital was held in the Nurses' Auditorium at 8.30 P. M. Drs. John C. Corrigan and Edwin B. O'Reilly presented the subject "Practical Aspects of Anemia."

AMERICAN COLLEGE OF PHYSICIANS

The meeting of the American College of Physicians, held at New York City, April 4-8, 1938, was

attended by Drs. Alex. M. Burgess, Charles F. Gormly, William S. Streker, Elihu S. Wing, Niles Westcott, Henry L. C. Weyler, Herman A. Lawson, Francis H. Chafee, Frank B. Cutts, Morgan Cutts, Louis I. Kramer, John F. Kenney, Ezra A. Sharpe, John C. Ham. Dr. Alex. M. Burgess read a paper on the subject:—"Oxygen Therapy."

Rhode Island Hospital**SCHEDULE FOR MAY, 1938**

Thursday, May 5:

Gyn. Staff Meeting, 8:30 P. M.

Friday, May 6:

G. U. Staff Meeting, 7:30 P. M.

Surg. Staff Meeting, 8:30 P. M.

Tuesday, May 10:

Clinical Path. Conference, 12:00 noon

Wednesday, May 18:

Nurses' Graduation, Aldrich House, 8:30 P. M.

Tuesday, May 24:

Clinical Path. Conference, 12:00 noon

Monday, May 30:

Holiday

Mondays:

Surgical Grand Rounds

I Surg. Grand Rounds, May 9, 23, 10:30 A. M.

II Surg. Grand Rounds, May 2, 16, 10:00 A. M.

Thoracic Clinic, 4:30 P. M.

Tuesdays:

Gastro-Intestinal Clinic, 9:30 A. M.

Surgical Grand Rounds, 10:00 A. M.

I Surg. Grand Rounds, May 3, 17, 31

II Surg. Grand Rounds, May 10, 24

Wednesdays:

Tumor Clinic, 10:00 A. M.

Thursdays:

Orthopedic Grand Rounds, 9:00 A. M.

Thoracic Clinic, 11:30 A. M.

Gyn. Path. Conference, 11:30 A. M.

Fridays:

Fracture Grand Rounds, 11:00 A. M.

Pediatric Grand Rounds, May 6, 20, 11:00 A. M.

Ped. Grand Rounds, May 6, 20, 11:00 A. M.

Saturdays:

Neurological Grand Rounds, 9:00 A. M.

Medical Conference, 10:00 A. M.

PROVIDENCE MEDICAL ASSOCIATION

To Members of Providence Medical Association:

Tuberculosis is still all too prevalent. In these days when so much money and effort are being spent in attempts to prevent and control diseases of unknown etiology, let us not lose sight of the fact that we have for a long time possessed the knowledge of the cause of tuberculosis and the method for its virtual eradication.

In this war against tuberculosis, a community health and social problem of the first magnitude, many agencies take part. These agencies are willing assistants to the physician who must be the guiding force in the campaign if co-ordination of activity and co-operation of effort are to prevail. The manifest interest of the State and City Health Departments in the tuberculosis problem is known to all. To mention the availability of their full co-operation seems almost superfluous. The Rhode Island Tuberculosis Association is active in educational campaigns and assists in the organization of case finding activities throughout the State; to the Providence Tuberculosis League it makes an appropriation from the Christmas Seal Fund. The work of the Providence Tuberculosis League is diagnostic; it constitutes a first assistant to the physician. At the Chapin Hospital, in addition to the care of ward patients there has been developed an Out-Patient Clinic; a large number of pneumothorax cases are treated. With the enlarged and improved facilities at the State Sanatorium, Wallum Lake, accommodations will be available for a greatly increased number of patients. The Providence District Nursing Association instituted tuberculosis nursing in 1906. Its services are available for the care and instruction of patients and contacts. At present this agency is caring for about 1,700 cases and contacts.

Tuberculosis is a catastrophic illness. Few of its victims or the families of its victims are able to bear the expense of necessary care—the care required not only for the individual patient but also for the family and immediate contacts.

Let us trace a hypothetical case. John Doe visits his family physician because of loss of weight and strength. All he wants is a tonic. He is nervous and irritable and has a cough which he ascribes to cigarettes. The physician suspects tuberculosis. The patient is reluctant to have a sputum examination.

He cannot afford consultation and X-ray examination. He is referred to the Providence Tuberculosis League, where this service is rendered gratis. The diagnosis is definitely established and the patient is referred back to his physician. The services of the Providence District Nursing Association are offered to assist in necessary instruction of family and the rounding up of contacts. An undernourished child in the family is found to be a positive reactor and receives the benefit of treatment at Lakeside Preventorium. The patient goes to the State Sanatorium at Wallum Lake or to the Chapin Hospital. He has been persuaded that institutional treatment with its complete facilities offers him the best chance for recovery and at the same time he will no longer be a menace to his family. He proves to be a suitable case for collapse therapy. In due time he returns home and to work but requires a long period of observation and refills which are carried out at the Thoracic Clinic of the Chapin Hospital. The family and contacts also require a long period of observation and guidance and in this the work of the assisting agencies is invaluable.

In addition to the care of known cases and contacts is the important problem of the finding of unsuspected cases. In this work the Rhode Island Tuberculosis Association is interested and active, especially in outlying communities and the Providence Tuberculosis League in Providence. Let us lend our full support and encouragement to this work—the examination of students, food handlers and industrial workers.

By law all known cases must be reported promptly to the State Department of Public Health. Perhaps a better system would be to require reporting to the local health officer. Although there is excellent co-operation between our city and state health officers, there has been much discussion as to the advisability of this change.

It may seem an elementary statement, but in the final analysis the problem consists of the unceasing education of the public and the co-operation of the physician with the various agencies which have been organized to assist him in the eradication of this terrible scourge. Let us maintain our enthusiasm and lend every effort to keep the machinery running smoothly.

THE STANDING COMMITTEE

SCLERODERMA, KELOID AND SCLEROSIS OF THE BREAST

F. RONCHESI, M.D.
PROVIDENCE

Ronchese reports a case of a 51-year-old woman showing a progressive atrophy and sclerosis of the skin with subsequent formation of unusual keloids, calcium nodules and bone tissue. The ensemble was not preceded by fevers, trauma, abscesses, fistulous sinuses or other skin diseases but developed without a noticeable cause. A pronounced sclerosis of the breast was also present. This combination appears to be a very rare occurrence.

Acrodermatitis chronica atrophicans, lichen sclerosus, Weber-Christian disease, various forms of sclerosis of the skin, and various types of atrophodermias are discussed. A peculiar feature of surgical interest was the involvement of the breast. Deep dimples, retraction of the nipple and hard lumps strongly suggested malignancy. In the differential diagnosis of a breast condition, with atrophy and scleroderma elsewhere, the rare occurrence of sclerosis of the breast is to be considered and a mastectomy may be avoided.

From the Department of Dermatology of the Rhode Island Hospital.

American Journal of Surgery, 34: 635, March 1938.

RECENT BOOKS

MACLEOD'S PHYSIOLOGY IN MODERN MEDICINE. Edited by Philip Bard, Professor of Physiology, Johns Hopkins University School of Medicine. Eighth edition. pp. 1051, with 355 illustrations. Cloth, \$8.50. The C. V. Mosby Company, St. Louis, 1937.

In the eighth edition, MacLeod's Physiology in Modern Medicine has been almost entirely rewritten. Following the death of Professor MacLeod, this edition has been edited by Dr. Philip Bard, Professor of Physiology at Johns Hopkins University School of Medicine, assisted by eight other investigators. They have presented the most recent accomplishments of the physiological laboratories of the medical schools at Johns Hopkins, Columbia, Yale, the University of Pennsylvania, the University of Maryland, and the University of California. The writers have succeeded both in presenting and in further developing Professor MacLeod's original idea of a work on Physiology and Biochemistry which would be of the greatest practical value to the medical clinician. The scope of the work may be indicated by its 1623 references to medical literature, filling fifty pages of the book. The matter is presented in an interesting style and is generally well written. Here is a work on a basic subject which can be recommended for reading, for study, and for reference.

THE COMPLETE PEDIATRICIAN. By Wilbert C. Davison, M.D. Second edition, completely rewritten. \$4.00, \$3.75 if check accompanies order. Duke University Press, Durham, N. C., 1938.

A compilation of all present knowledge of the diseases of children. The author has collected from recent literature 7,854 references which he analyzes in the light of his experience as Acting Pediatrician in Charge at the Johns Hopkins Hospital and Professor of Pediatrics at Duke University. In this second edition there are new chapters on growth, development, nutrition and infant mortality. The scope and arrangement of the work are encyclopedic. It is recommended to medical students, internes and general practitioners, as well as to pediatricians.

OPERATIVE GYNECOLOGY. By Harry Sturgeon Crossen, M.D. and Robert James Crossen, M.D., Fifth Edition, entirely revised and reset. pp. 1076, with twelve hundred sixty-four illustrations including three color plates. Cloth, \$12.50, The C. V. Mosby Company, St. Louis, 1938.

All students of pelvic surgery are familiar with Crossen's "Operative Gynecology" and Crossen's "Diseases of Women." These two books have been major contributions to American gynecology for many years and rightly so, for in them are discussed the operations of gynecology not only as to their mechanical or technical detail but as to their proper indications. Is the operation necessary? Does the operation contemplated fit the patient as indicated by her age and general condition? Here is no compilation of operations by a "mechanical" surgeon, but rather a consideration of operations and their effects on patients from the widest possible viewpoint, based on thorough knowledge of physiology and pathology and supplemented by that mature judgment in clinical gynecology which comes only through the schooling of experience to the careful, conscientious and self-critical surgeon.

In this the fifth edition the authors have completely revised the edition of seven years ago, bringing in many contributions from the work in clinical surgery of this active period.

Of particular interest is Dr. Crossen's chapter on uterine cancer and its treatment by X-ray and radium. It is of interest to the reviewer that Dr. Crossen has given several pages to the discussion of Cancer Prevention, bringing out the necessity for treatment of the post partum cervix and of periodic examinations.

A chapter on the "Intestinal Tract in Relation to Gynecologic Surgery" by H. S. Brookes, Jr. has been added and is well worth while. The same author has also written the chapter on "Anesthesia." His treatment seems sane and sound.

The chapter on medico-legal medicine is always of interest, and should be read by all who practice surgery.

We are glad that we have an "Operative Gynecology" and think our \$12.00 investment greatly worth while.

GEORGE W. WATERMAN, M. D.